

REMARKS

The application has been amended and is believed to be in condition for allowance.

The Official Action objected to the specification for not including section headings. Responsively, the specification has been amended to include section headings.

The Official Action objected to claims 4, 8, and 17 due to certain informalities. Responsively, these claims have been amended as kindly suggested by the Examiner. Applicant appreciates the Examiner having pointed out these formal difficulties and having recommended specific remedies.

Claims 1-3, 5-7, 11-14, and 16 stand rejected as obvious over DARDARE et al. (FR 2,697,670) in view of HARA et al. 4,568,207.

Applicant acknowledges with appreciation that the Official Action indicated that claims 4, 8, 9, 15, 17, and 18 were directed to allowable subject matter and would be allowable if rewritten in independent form.

In reliance thereupon, claims 15 and 17 have been amended to be in independent form including the recitations of base claim 1. Accordingly, allowance of claims 15 and 17 is solicited.

As to independent claim 1, this claim is also believed to be patentable as the proposed combination is not believed to be viable.

As acknowledged by the Official Action, DARDARE et al. does not disclose the armature being pivotably supported by the supporting yoke leg and a second magnetic circuit formed by the yoke and the armature in which in the first position of the armature, a magnetic resistance being higher than that of the first magnetic circuit, and it is decreasing when the armature moves from the first to the second position.

Note also that DARDARE et al. is not the same structure as that specifically disclosed by the present invention. The permanent magnet 27 forms a center leg and the coil is provided around the outer leg 23. In the actuator disclosed by the present invention, this is reversed and consequently, also the flux streams run in a different direction.

Similarly, HARA et al. relate to technology different than that of the present invention and different than that of DARDARE et al. That is, HARA et al. relate to a magnetic actuator but in the field of matrix dot printers. The matrix dot printer field requires the application of particularly high frequencies being used for the actuator. Thus, it does not seem that one of skill in the art looking at the DARDARE et al. reference would turn to HARA et al. for teachings, given that

HARA et al. is for dot matrix requiring high frequencies in their actuator use.

Also note that HARA et al. has a date of patent of February 4, 1986, which is well before the 1992 application date of the DARDARE et al. patent. Thus any relevant teachings of HARA et al. would have been well known within the relevant arts. This would seem to indicate that the advantages being proffered by the Official Action are not so obvious. Rather, applicant believes that this is an occasion of impermissible hindsight where actually unrelated references are being stitched together to result in the recited combination.

Attention is directed to *In re Rouffett*, 47 USPQ2d 1453, 1457 (Fed. Cir. 1998), citing to *Richdel, Inc. v. Suns Pool Corp.*, 219 USPQ 8, 12 (Fed. Cir. 1983) "[M]ost, if not all, inventions are combinations and mostly about elements." The Federal Circuit continued by noting that "Rejecting patents solely by finding prior art corollaries for the claimed elements would permit an Examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the claimed invention."

Thus, the Federal Circuit requires that in order to prevent the use of such hindsight, the Official Action must "show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed

invention, would select the elements from the cited prior art references for combination in the manner claimed." (*In re Ruffett* at 1458). The presently proposed combination does not meet the requirements for a viable obviousness rejection.

Further, applicant does not believe that the proposed combination would indeed result in the recited invention.

With reference to Figure 4 of HARA et al., applicant only can find one magnetic circuit, of which the magnetic resistance or reluctance decreases when the armature 24 moves from its rest position (Figure 4). This magnetic circuit is constituted by the core 21, the armature 24, the leg 20a and the leg 22. However, the permanent magnet 25 is not included in this magnetic circuit of decreasing reluctance as in the actuator of the present application.

In HARA et al., the permanent magnetic 25 is included in the magnetic circuit formed by the leg 20b, the web 20c, the leg 20a, the core 21, the armature 24 and the pole piece 26. If one assumes that this magnetic circuit is a second magnetic circuit as mentioned in the characterizing clause of claim 1, it is clear that by the movement of the armature 24 a magnetic reluctance of this so-called second magnetic circuit just increases.

A further difference is that in the actuator of the present application the flux produced by the permanent magnet 7

and the flux produced by the current through the coil 12 (10 and 15 respectively) run in the same direction between the permanent magnet and the armature 8. In the known actuator of HARA et al., however, said fluxes run in different directions (F2 and F1). Thus, the application of HARA et al. to DARDARE et al. would not seem to result in that recited.

Because of these differences applicant believes that one skilled in the art would not combine the contents of DARDARE et al. and HARA et al., and if one could come to such a combination, it will not be clear how one could come to the invention. In particular, note that claim 1 requires that the magnet be included in the second magnetic circuit. This is important for having a compensation for the varying force of the spring means during the armature movement as taught by the inventor.

In summary, the combination of DARDARE et al. and HARA et al. is not believed to be properly motivated, and further, even if combined, the combination is not believed to result in the recited invention. Therefore, the obviousness rejection is not believed to be viable and original claim 1 is believed to be patentable.

Therefore, reconsideration and allowance of claim 1 as well as the claims depending therefrom, are respectfully requested.

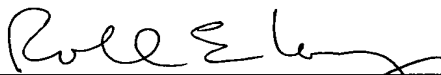
The dependent claims are believed to be allowable at least for depending from an allowable independent claim. As claim 1 is believed to be allowable, the advantageous and non-obvious features of the dependent claims are not being addressed.

Applicant believes that the present application is in condition for allowance and an early indication of the same is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. \$1.16 or under 37 C.F.R. \$1.17.

Respectfully submitted,

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